Land Attack Systems Working Integrated Product Team

Developing a Navy “System of Systems” Approach

Laurence Weeks
NSWC Dahlgren
PEO IWS 1B1C
Land Attack Systems Engineer

Richard Carr
Planning Consultants, Inc

CDR Mike Good
N76 Land Attack Systems WIPT Chairman

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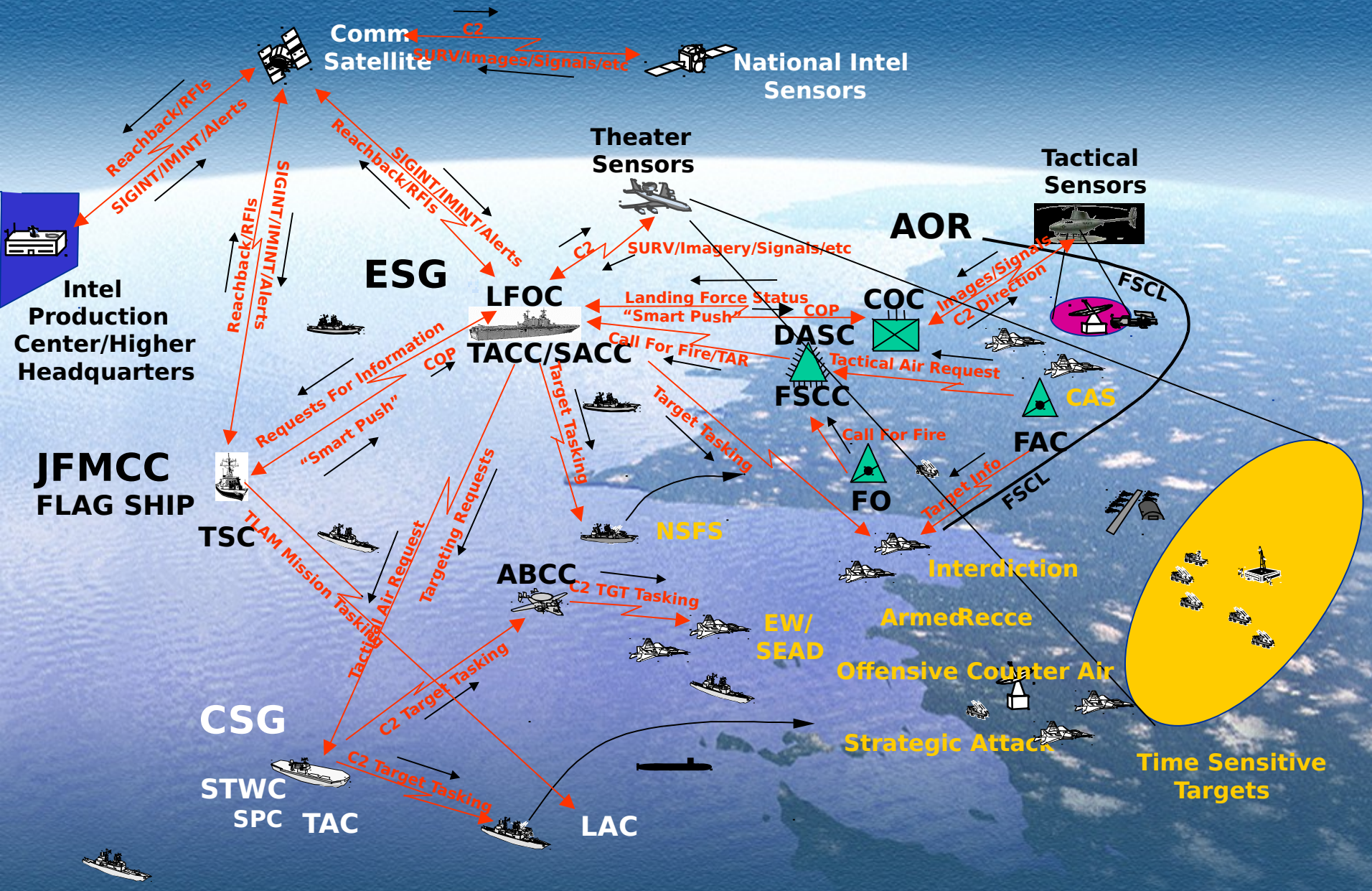
Agenda

- Joint Net-Centric Land Attack
- N76 Land Attack Vision
- Challenges
- Land Attack Capstone Organization
- Examples
- Final Thoughts

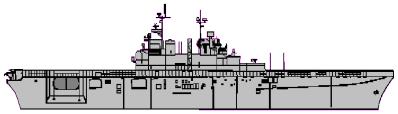
Preliminary Draft
Predecisional

OV-1 Strike Operations - 2009

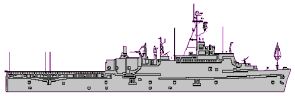


Current ESG Interoperability Challenge

Expeditionary Strike Group



LHD



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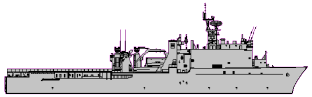
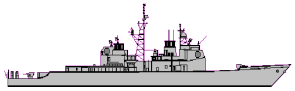


LSD



CG

DDG

FFG

SSN

VLS Cells:	208
Air Defense Engagements:	30+
Guns (76mm or greater):	4
Acoustic Arrays:	4

F/W Aircraft:	6
Strike Sorties/Day:	18
Attack Helos (AH-1):	4
Attack Sorties/Day:	19
Transport Helos (H-1/46/53)	~20
Armed Helos (SH/HH-60):	2-4

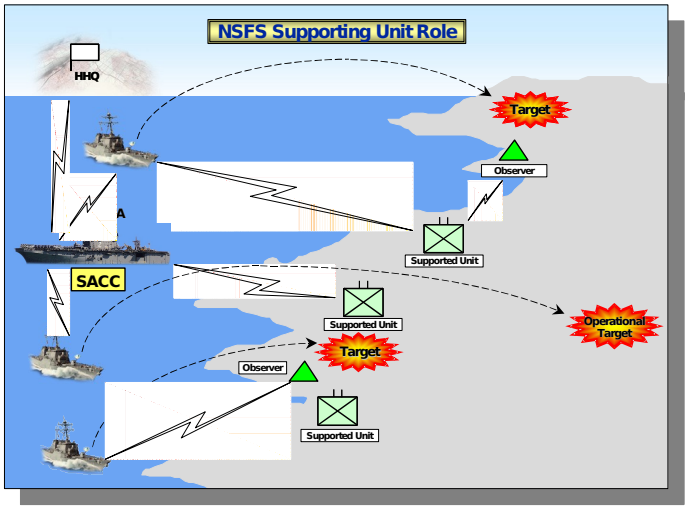
ISR Capabilities	
Cryptologic ESM:	
Airborne Search Radar:	4
3-D Air Search Radar:	3
Organic Pioneer UA	

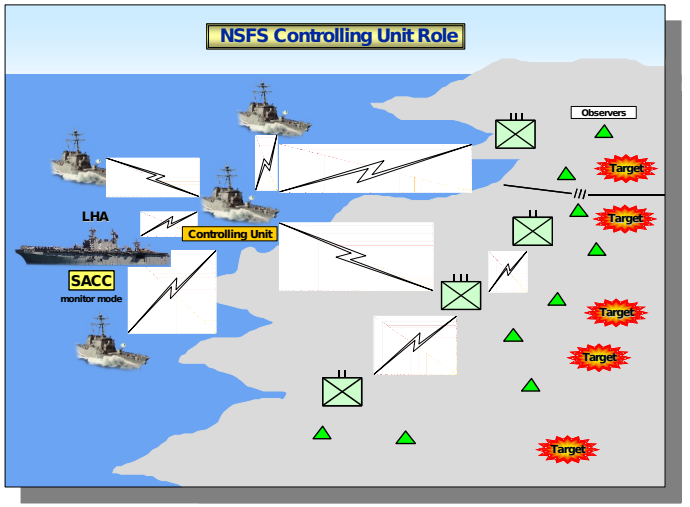
Total Troops:	2,300
Tanks:	4
Light Armored Vehicles:	16
Assault Amphibians:	15
Artillery Tubes (155 mm):	6

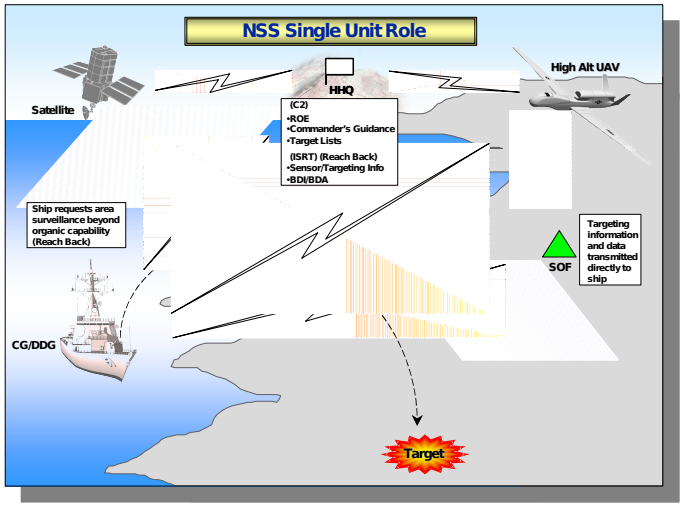
MIO Capability	
Compliant/Non-Compliant:	7
Non-Compl	

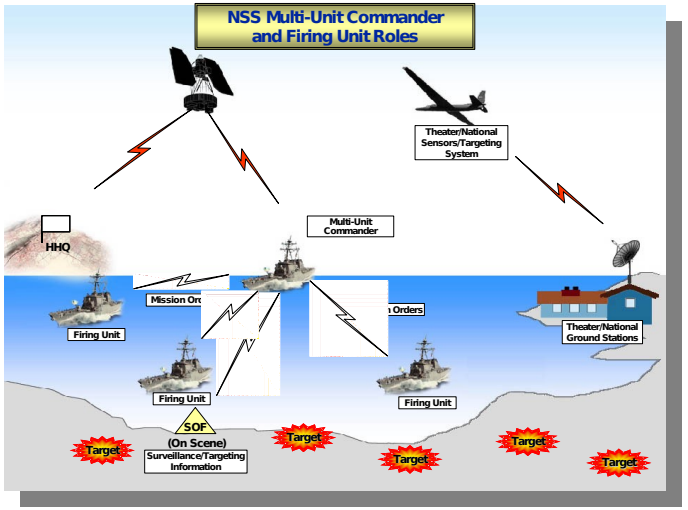
SEAL Platoons	1-4
Force RECON PLT	1
NSW RIB Dets	1-2

N76 Land Attack Vision - Ship Roles









Challenges

- Multi-Process/Program Coordination
- Joint/PEO/PM Buy-In
- FoS/SoS Interoperability For *Timely Weapon Engagement*
- Host Combat System Integration Cost/Benefit
- Operator Workload/HSI
- Unfunded Requirements

How Does Effort Best Help The Sailor?

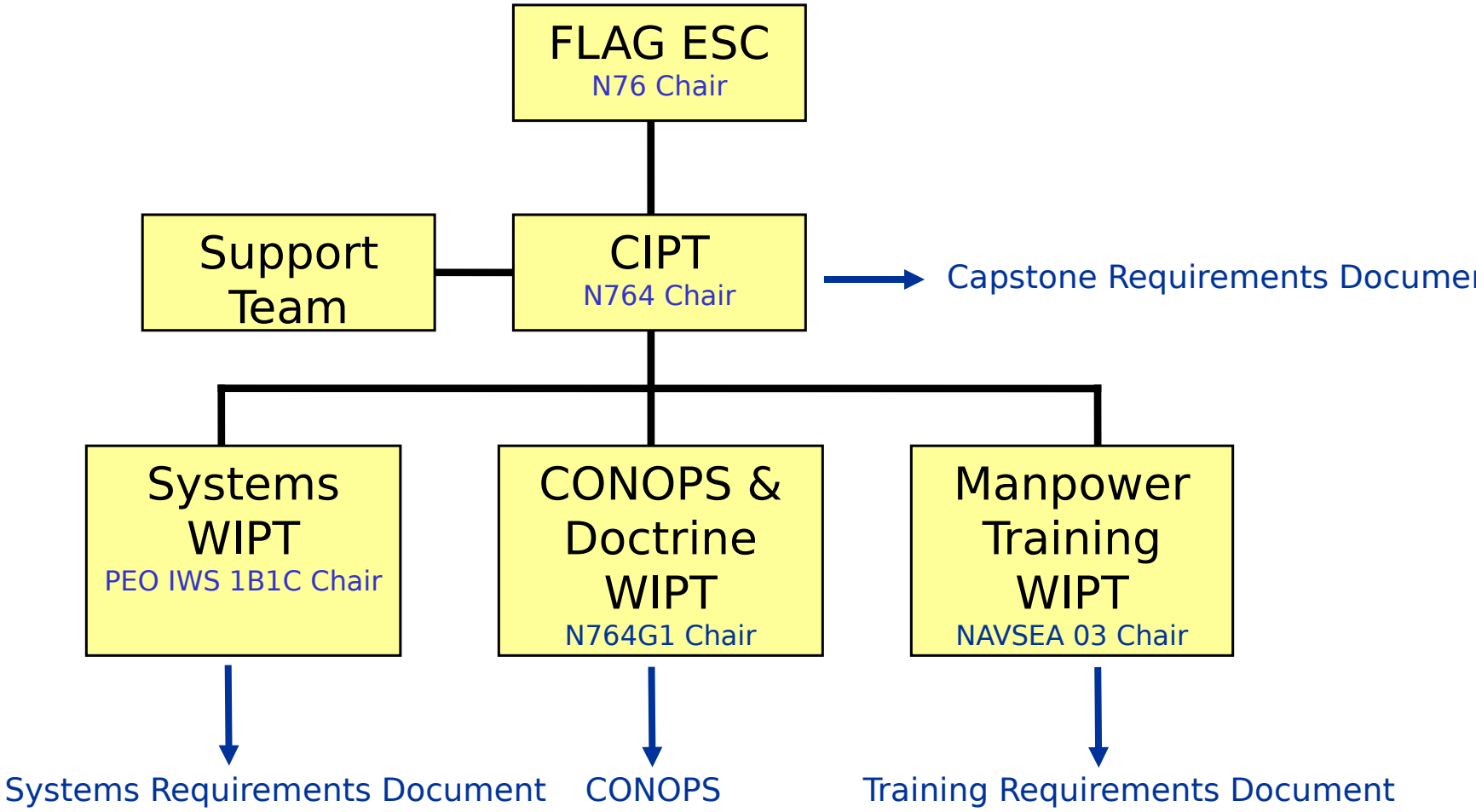
Response – Land Attack Capstone Organization

- N86, PEO (TSC), PEO (CU) and PEO (DD21) Met in May 99 And Agreed To:
  - Synchronize Requirements and Programs
  - Eliminate Unnecessary Duplication
  - Optimize Manning and Training Requirements
  - Reduce Development and Life Cycle Costs
  - Make The Most Effective Use of Existing and Future Resources

Current ESC Membership

- N76
- N75
- N77
- N61
- COMSPAWAR
- DIR OPSDIV PPO HQMC
- ASN(RD&A) CHENG
- PEO W
- PEO Ships
- PEO Submarines
- PEO C4I and Space
- PEO IWS

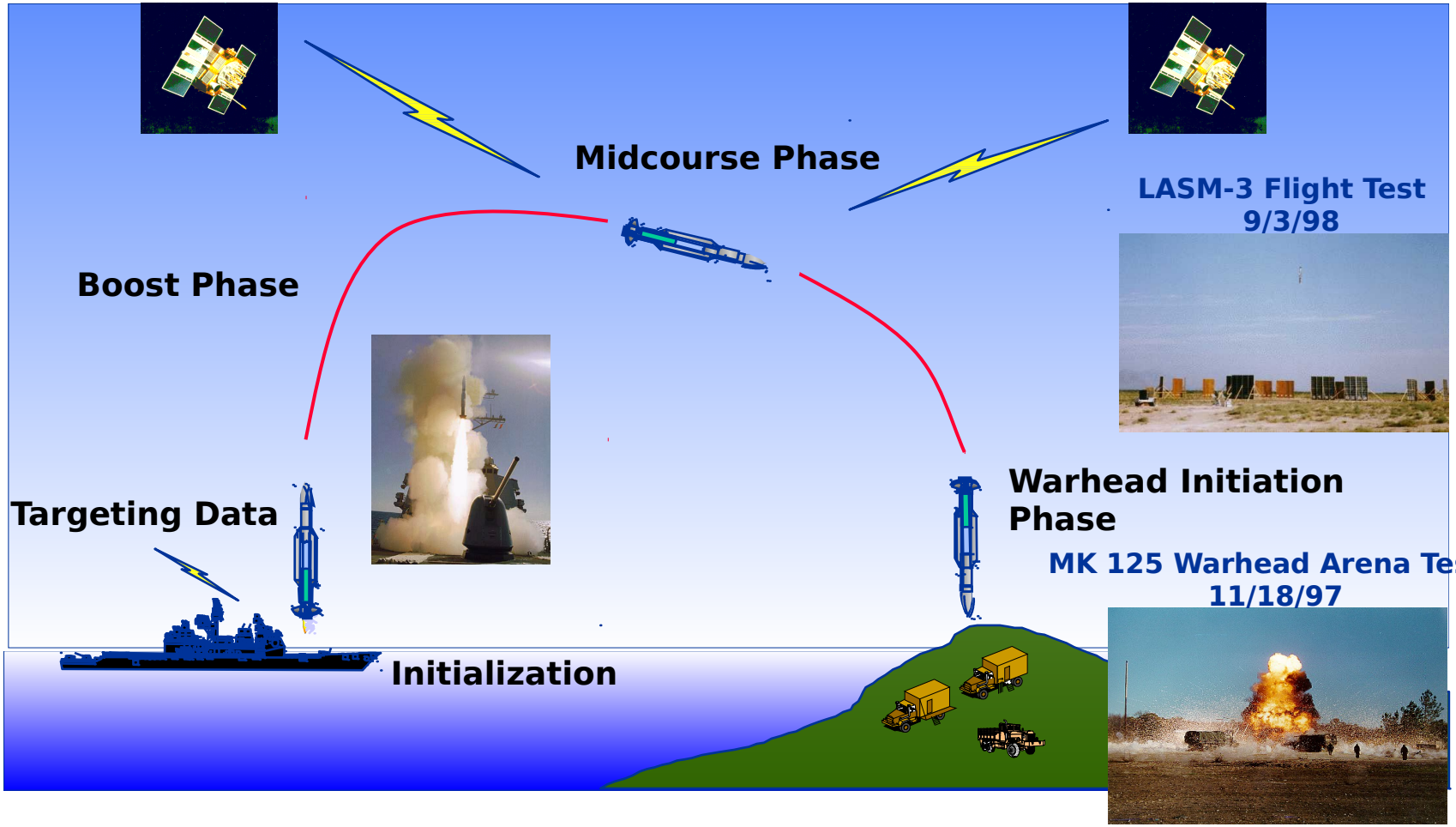
Capstone Organization Composition and Products



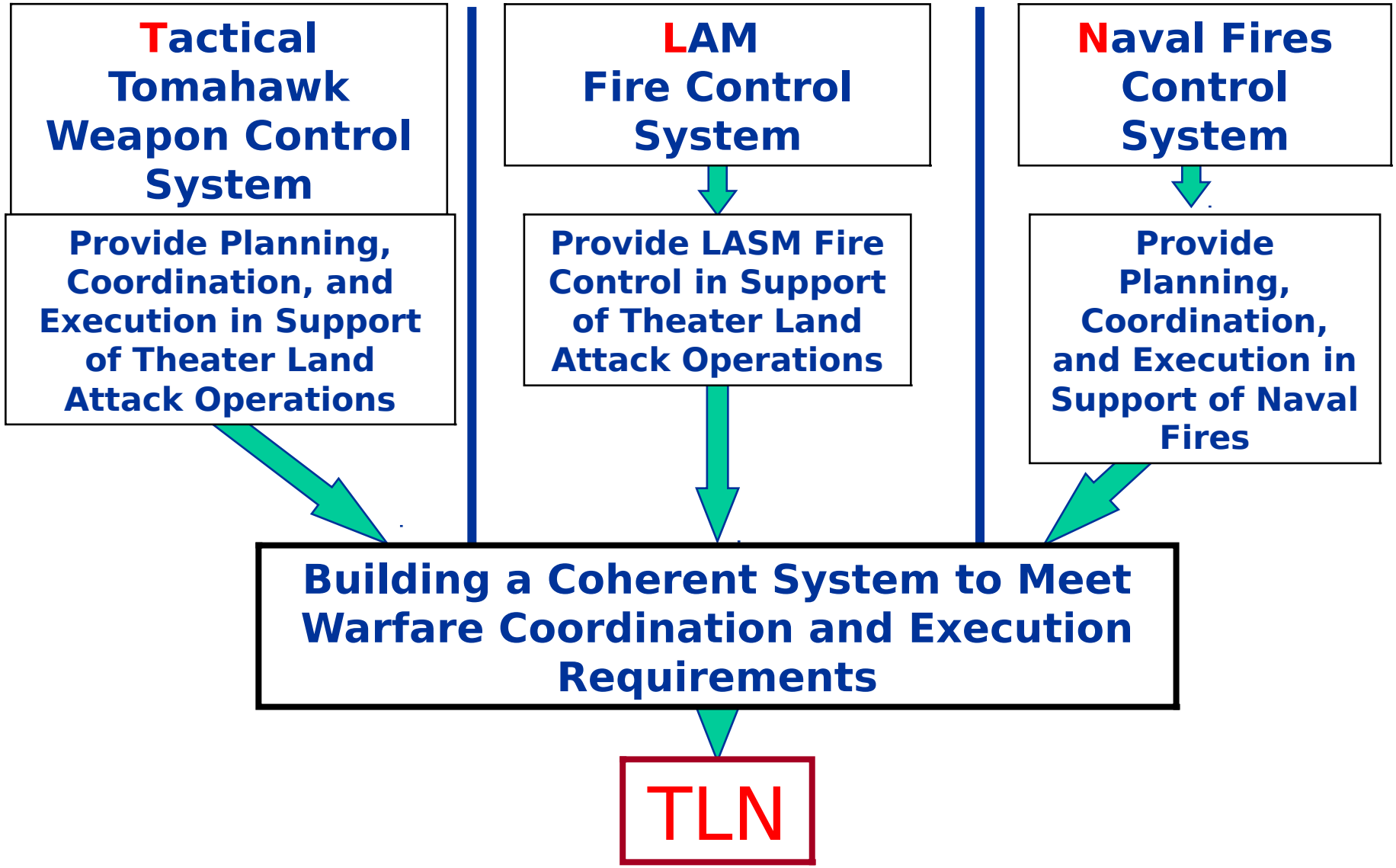
Land Attack Systems WIPT Charter

- Chaired by PEO IWS 1B1C (Littoral Warfare Area Manager)
- Develop a Total System Approach Toward Integrating Naval Fires Capabilities Into SCFOS, AEGIS SCs, SSGN/SSNs, Amphibs & Future Ships
- Develop an Overarching Systems Performance Document for Naval Fires for All Ship Classes
- Maintain a Broad “System of Systems” View

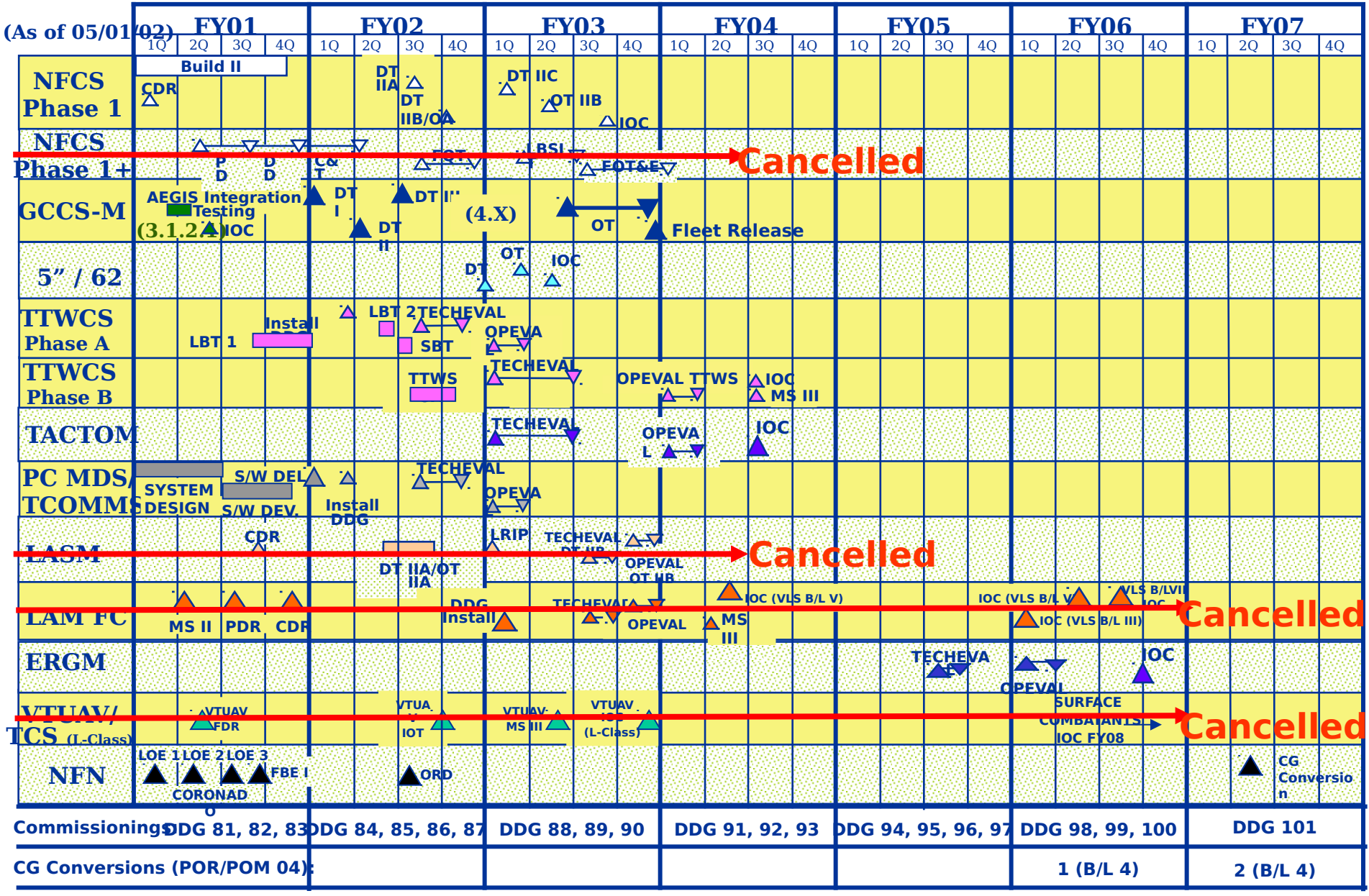
LASM Concept of Employment



Evolution from a "Stand Alone" Acquisition Strategy

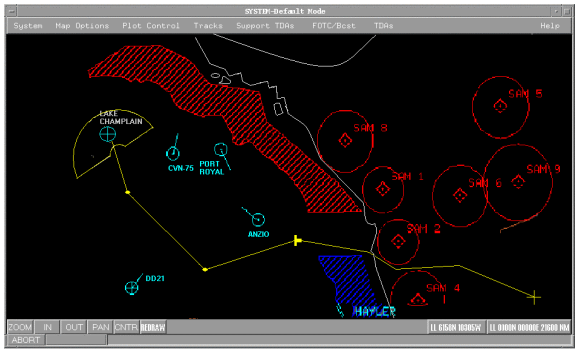

Tactical Tomahawk Weapon Control System
Provide Planning, Coordination, and Execution in Support of Theater Land Attack Operations
LAM Fire Control System
Provide LASM Fire Control in Support of Theater Land Attack Operations
Naval Fires Control System
Provide Planning, Coordination, and Execution in Support of Naval Fires
Building a Coherent System to Meet Warfare Coordination and Execution Requirements
TLN

Post-PR03/POM 04 **Land Attack Program Sched**

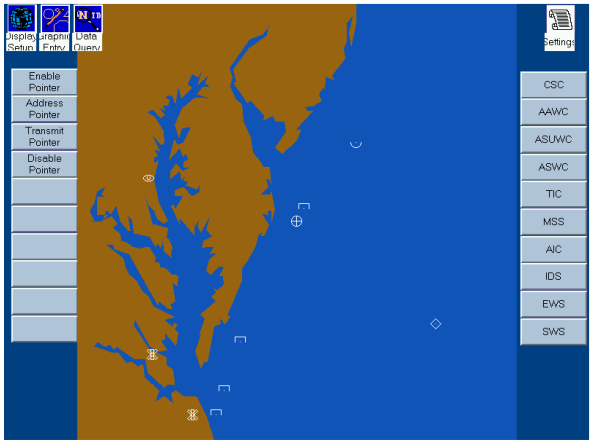


AEGIS and Land Attack Related Displays

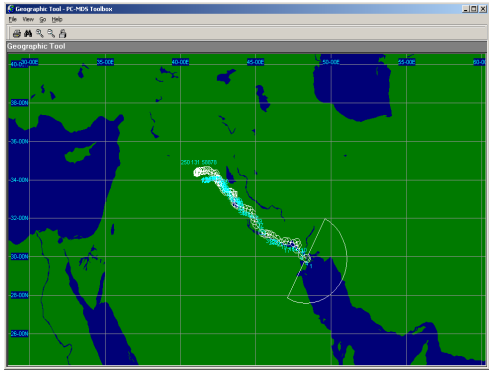
TTWCS



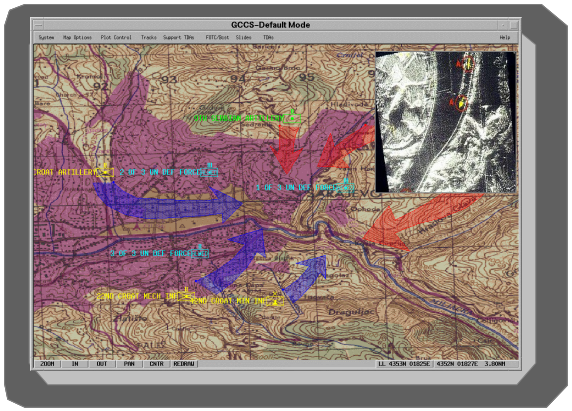
ADS



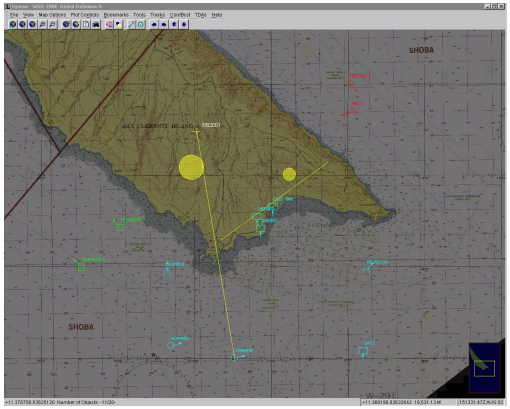
PC MDS



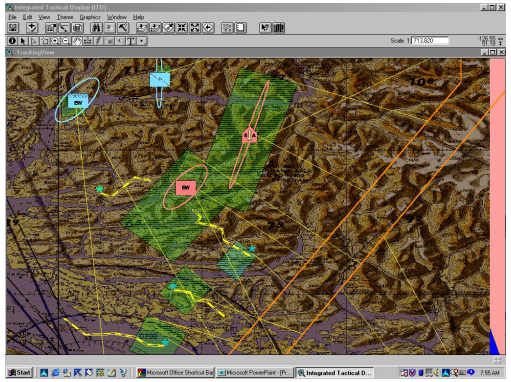
GCCS-M



NFCS



TES-N*



*JFN≈TES+GCCS+JSIPS-N Converged Architecture

Final Thoughts

- We’ve Got Traction…
- Define An End-To-End Systems Engineering Process
- Develop Incremental Capability
- Mature From “Independent Land Attack Components” to a “Land Attack System of Systems” Fully Interoperable With Sensor, Command and Control, and Weapon Grids
- Senior Stakeholder Leadership Support Is Critical

Deploying ESGs Need Solutions Now!